

What is claimed is:

1. An apparatus for detecting a light-transmissive sheet-like body, comprising:

5 a light source unit for emitting illuminating light;

a reflector for reflecting the illuminating light;

light detecting means for detecting the illuminating light which is reflected by said reflector; and

10 a converging optical system for leading the illuminating light reflected by said reflector to said light detecting means,

15 wherein a light-transmissive sheet-like body placed between said light source unit and said reflector is detected based on information of said illuminating light which is detected by said light detecting means.

2. An apparatus according to claim 1, wherein said light detecting means comprises a two-dimensional area sensor for obtaining two-dimensional distribution information of said illuminating light.

25 3. An apparatus according to claim 1, wherein said converging optical systems are spaced from each other along the length of said light-transmissive sheet-like body.

4. An apparatus according to claim 3, further comprising:

processing means for processing information obtained by said plurality of light detecting means to calculate the length of said light-transmissive sheet-like body.

5           5. An apparatus according to claim 1, wherein said converging optical system comprises a telecentric optical system for leading said illuminating light therethrough to said light detecting means.

10           6. An apparatus according to claim 5, wherein said telecentric optical system comprises:

          a condenser lens disposed on a side closer to said reflector; and

          an aperture member disposed at a focal point of said  
15           condenser lens disposed on a side closer to said light detecting means.

20           7. An apparatus according to claim 1, wherein said converging optical system comprises a half-silvered mirror for leading the illuminating light emitted from said light source to said light-transmissive sheet-like body and leading the illuminating light reflected by said reflector to said light detecting means.

25           8. An apparatus according to claim 1, wherein said light source and said converging optical system are connected to each other by an optical fiber for leading the

illuminating light.

9. An apparatus according to claim 1, wherein said  
light-transmissive sheet-like body is made of a  
5 photosensitive material sensitive to visible light, said  
illuminating light having a wavelength of at least 850 nm.